



BEAR CLAW™



THE SUPERIOR • 1 • 2 • 3 • PLAYER CLAWS



MADE IN THE U.S.A.

SMART INDUSTRIES CORP., MFG.
(515) 244-3500

THREE CLAW UNIT

Dimensions;
71" Wide
34" Depth
58" High (Trailer Mounted)
81" High (Floor Model)

TWO CLAW UNIT

Dimensions;
48 $\frac{3}{8}$ " Wide
34" Depth
58" High (Trailer Mounted)
81" High (Floor Model)

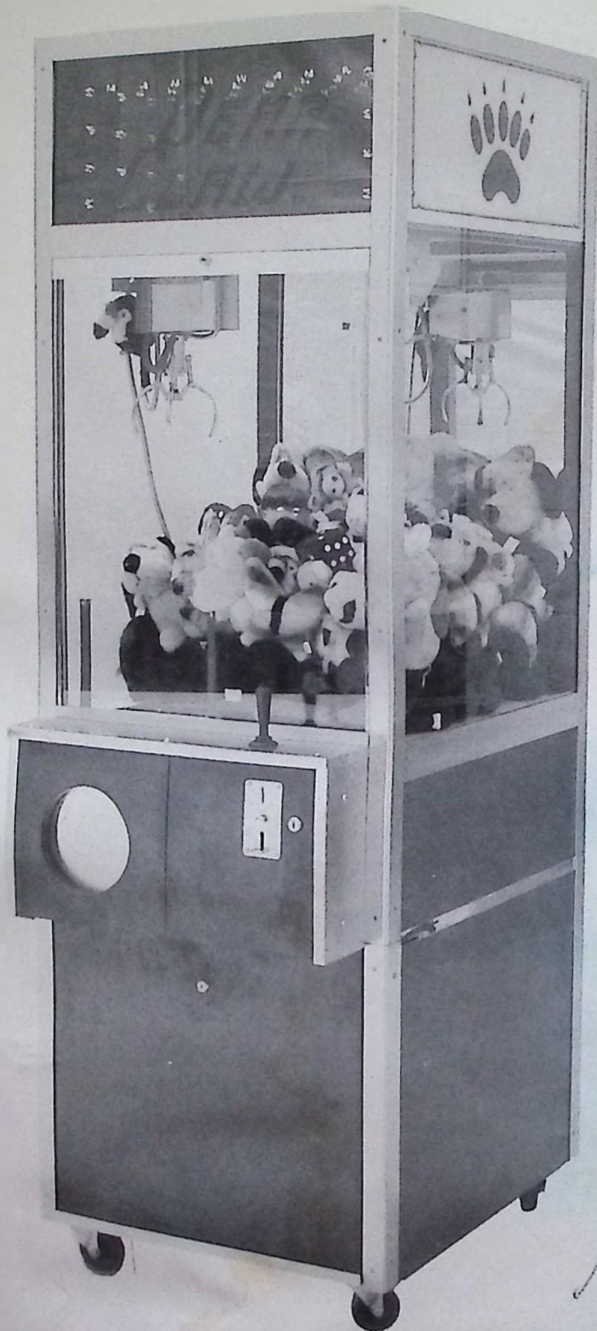


RELIABLE QUALITY

EXCITING

GREAT PERFORMANCE

A NEW LEVEL IN QUALITY AND PERFORMANCE



BEAR CLAW MEANS BIG PROFIT

A high volume machine that requires very low maintenance because of safe guards programmed into the unit.

There are two game programs built into the game board. This allows you the selection that best fits your location.

Optional dollar bill acceptor mounted on the coin door, eliminates the need of making change and increases the machines use. This means higher volume and profits!

- Two Game Option (Fast or Skill)
- Superior Joy Stick Control
- Fully Adjustable Claws
- Breakdown Cabinet For Easy Handling
- Optional Dollar Bill Acceptors

SINGLE CLAW UNIT

Dimensions:

26¼" Wide

34" Depth

58" High (Trailer Mounted)

81" High (Floor Model)

MADE IN U.S.A.

NEW
EXCITING — RELIABLE
MICRO PROCESSOR
GAME BOARD

1800
553
2442

SMART INDUSTRIES CORP., MFG.

1801 Bell Avenue
Des Moines, Iowa 50315
Phone: (515) 244-3500

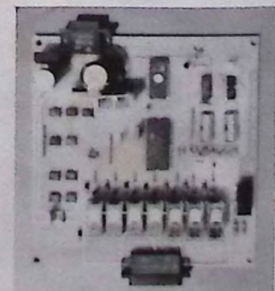


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DO NOT ALTER FACTORY SETTINGS

WARNING:
SHOCK HAZARD

Connect this game only to a grounded 3-wire. If you have only a 2-wire outlet, we recommend you hire a licensed electrician to install a grounded outlet. Players may receive an electric shock if this game is not properly grounded!

GAME INSPECTION

This new game is ready to play upon removal from the shipping carton. However, your careful inspection is needed to supply the final touch of quality control. Please follow these steps to help us insure that your new game was delivered to you in good condition.

NOTE:

Do not plug the game in yet:

1. Examine the exterior of the game cabinet for dents, chips, or broken parts.

2. Unlock and open the coin door, inspect the interior of the game as follows:

Check that all plug-in connectors (on the game harness) are firmly seated. Replug any connectors found unplugged. Don't force connectors together. The connectors are keyed so they only go on in the proper orientation. A reversed edge connector will damage a PCB and will void your warranty.

Check that all plug-in integrated circuits on the game PCB are firmly seated in their sockets.

Remove the tie-wrap that holds the coiled power cord on the inside cabinet wall. Check the cord for any cuts or dents in the insulation.

INSTALLATION

1. Location requirements:

Power

Domestic 110 V @ 60 Hz

Foreign 200 V to 240 V @ 50 Hz

Temperature: 32° to 100°F (0° to 38°C)

Humidity: Not over 95% relative

Space required:

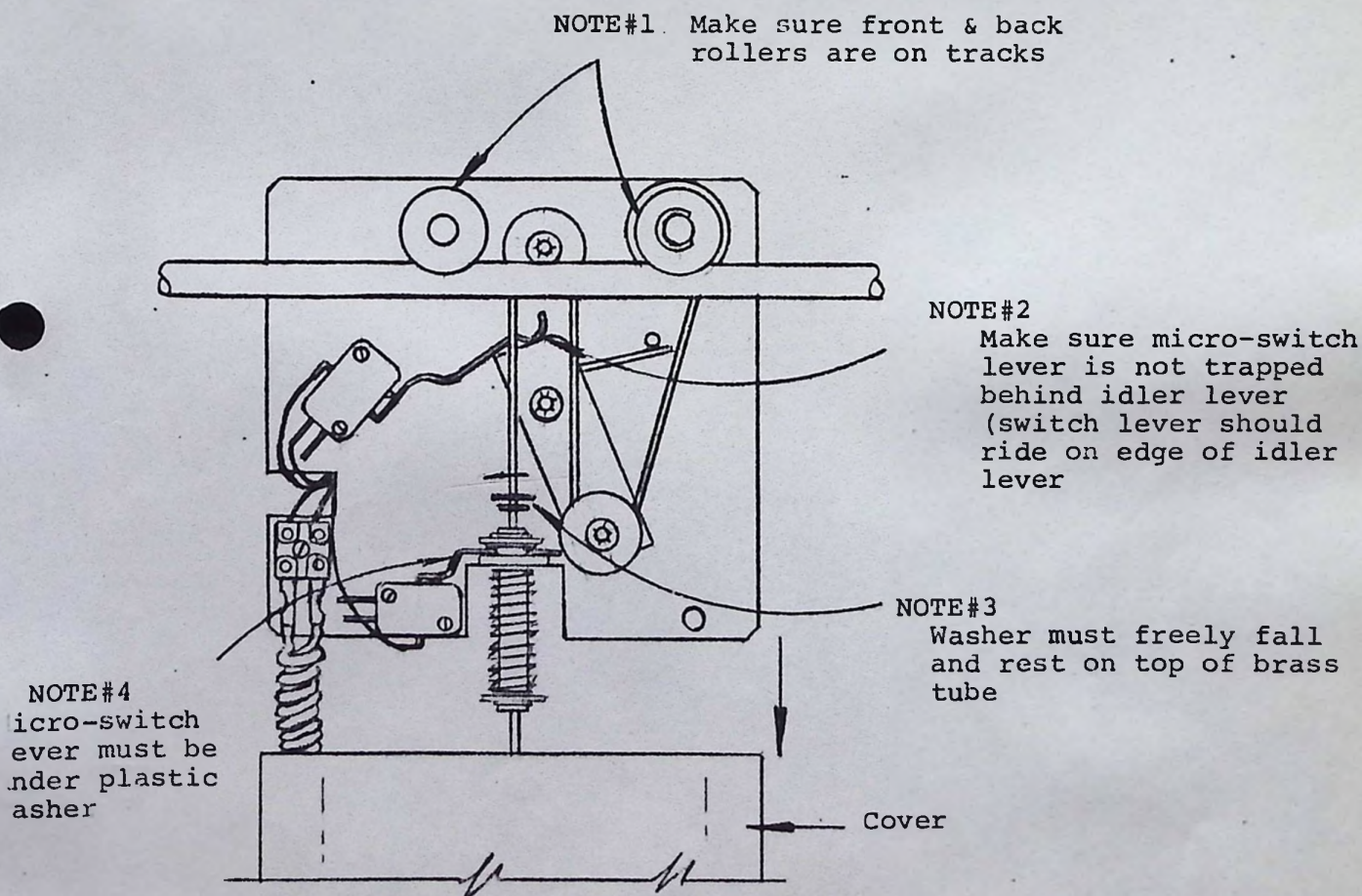
Single Play 34 x 26 1/4 inches

Double Play 34 x 48 1/2 inches

Triple Play 34 x 71 inches

CHECK-OUT AND SET-UP PROCEDURES

1. Remove bubble pack from crane.
2. Set crane on track & make sure all rollers (wheels) are on the track rods.
3. Check-out micro switches
(Remove front cover by sliding down)



4. Game board check
 - A. Check to make sure that the 15 pin connector and the 25 pin connector are secure.
 - B. Look for any physical damage to board.

GAME OPTION

Make sure game is turned off before making changes with dip switches.

15
PIN

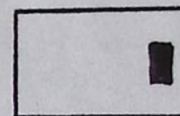
"SWITCH 1"

8, 7, 6, 5, 4, 3, 2, 1

"SWITCH 2"

8, 7, 6, 5, 4, 3, 2, 1

"CLOSE COMMAND"



1, 2, 3

RELAY

RELAY

RELAY

RELAY

RELAY

RELAY

25
PIN

GAME OPTION

Make sure game is turned off before making changes with dip switches.

"Switch 1"

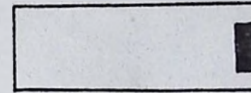
8,7,6,5,4,3,2,1

"Switch 2"

8,7,6,5,4,3,2,1

15
PIN

" CLOSE COMMAND "



1, 2, 3

RELAY

RELAY

RELAY

RELAY

RELAY

RELAY

25
PIN

Make sure game is turned off before making changes with dip switches

GAME OPTION

: "SWITCH 2"
Number of Quarters per Game

Quarters

1	3 on, 2+1 off
2	2 on, 3+1 off
3	2 on, 3 on, 1 off
4	1 on, 2 off, 3 off

Number of Games per Quarter

Games

1	6 on, 5+4 off
2	5 on, 6+4 off
3	5 on, 6 on, 4 off
4	4 on, 5 off, 6 off
5	4 on, 5 off, 6 on
6	4 on, 5 on, 6 off
7	4 on, 5 on, 6 on

Timer setting for "B" or "C" Game.

Switch

<u>8</u>	<u>7</u>
Off	Off 15 seconds
On	Off 20 seconds
Off	On 25 seconds
On	On 30 seconds

Make sure game is turned off before making changes with dip switches

GAME OPTION

"Switch 1 "

Number of Dollars per game

Dollars

1 3 on, 2 + 1 off

:
:
:

Number of games per Dollar

Games

1	6 on, 5 + 4 off
2	5 on, 6 + 4 off
3	5 on, 6 on, 4 off
4	4 on, 5 off, 6 off
5	4 on, 5 off, 6 on
6	4 on, 5 on, 6 off
7	4 on, 5 on, 6 on

Switch 7, if on, disable game "B" timer

Switch 8, on-"B" game

off-"C" game

CALIFORNIA ONLY

Make sure game is turned off before making changes with dip switches

GAME OPTION

"Switch 1"

Number of Dollars per game

Dollars

1

3 On, 2 + 1 Off

Number of games per Dollar

Games

1

6 On, 5 + 4 Off

2

5 On, 6 + 4 Off

3

5 On, 6 On, 4 Off

4

4 On, 5 Off, 6 Off

5

4 On, 5 Off, 6 On

6

4 On, 5 On, 6 Off

7

 $4 \text{ O}_n, 5 \text{ O}_n, 6 \text{ O}_n$

Switch 7, if on, disable game "B" timer

Switch 8, on-"B" game
off-"B+" game


```

*****
* 10-06-1986          EPROM #106(B,B+,C)          *
*****
* GAME SELECT: DIP SWITCH S2                      *
* MAX DOLLARS = 3 (POS 2 AND 3)                    *
*
*          POS 8      *          POS 1              *
*-----*-----*-----*-----*-----*-----*
*          OFF      *          OFF      *          B+ GAME      *
*-----*-----*-----*-----*-----*-----*
*          ON       *          X       *          B  GAME      *
*-----*-----*-----*-----*-----*-----*
*          OFF      *          ON       *          C GAME      *
*-----*-----*-----*-----*-----*-----*
*          * X=DON'T CARE *                        *
*-----*-----*-----*-----*-----*-----*
*          NUMBER OF DOLLARS PER GAME                *
*
* 1      3 ON, 2 OFF                                *
* 2      2 ON, 3 OFF                                *
* 3      2 ON, 3 ON                                  *
*
*          NUMBER OF GAMES PER DOLLAR                *
*
* 1      6 ON, 5+4 OFF                              *
* 2      5 ON, 6+4 OFF                              *
* 3      5 ON, 6 ON, 4 OFF                          *
* 4      4 ON, 5 OFF, 6 OFF                          *
* 5      4 ON, 5 OFF, 6 ON                          *
* 6      4 ON, 5 ON, 6 OFF                          *
* 7      4 ON, 5 ON, 6 ON                          *
*
* POS 7 IF ON DISABLES GAME B TIMER                *
*****
* NUMBER OF QUARTERS: DIP SWITCH S3                *
*          POS 2          POS 3          4 MAX      *
*-----*-----*-----*-----*-----*-----*
* 1      OFF      *          OFF      *
*-----*-----*-----*-----*-----*-----*
* 2      OFF      *          ON       *
*-----*-----*-----*-----*-----*-----*
* 3      ON       *          OFF      *
*-----*-----*-----*-----*-----*-----*
* 4      ON       *          ON       *
*-----*-----*-----*-----*-----*-----*
*          * POS 1 ON = BONUS OFF = NO BONUS *      *
*-----*-----*-----*-----*-----*-----*
*          NUMBER OF GAMES PER QUARTERS              *
*
* GAMES
* 1      6 ON, 5+4 OFF                              *
* 2      5 ON, 6+4 OFF                              *
* 3      5 ON, 6 ON, 4 OFF                          *
* 4      4 ON, 5 OFF, 6 OFF                          *
* 5      4 ON, 5 OFF, 6 ON                          *
* 6      4 ON, 5 ON, 6 OFF                          *
* 7      4 ON, 5 ON, 6 ON                          *
*
*          TIMER SETTING FOR B GAME                *
* SWITCH'S      8          7                      *
*          OFF      OFF      15 SEC                *
*          ON       OFF      20 SEC                *
*          OFF      ON       25 SEC                *
*          ON       ON       10 SEC                *
*****

```


PRIZE LIFT LIMITATIONS

Close Command Switch

1. 4.5 ounce maximum weight for prize
2. 5.0 ounce maximum weight for prize
3. 5.5 ounce maximum weight for prize

REGULATIONS YOUR RESPONSIBILITY

Your game has been carefully designed and manufactured.

Our factory is capable of designing unique features or controls should your jurisdictions regulations require it.

The set-up and the daily operation of your game greatly influences the legal acceptance of your on-location crane business.

Your responsibilities include:

1. Not to alter or tamper with any factory setting, circuitry, or programs without factory authorization. Doing so will nullify and void your warrant and may be criminal.
2. Ascertainning that each and every prize you place in the game's playfield can be retrieved and won by a player. (Consider that some prizes can be too small, large, or heavy).
3. The machine must be chacked frequently to insure that the prizes are not packed, restricted, or inaccessible to a player. If a prize cannot be retrieved by a skillful player in a reasonable amount of attempts, DO NOT place it within the game.
4. Checking with the jurisdiction authorities where you are operating, as to any required business license, game license, or regulations. (You may also do this through your business legal advisor).
5. Inspect your game daily to ascertain all mechanisms are properly functioning. All decals and signs are posted, and your prizes are well stocked. This will increase your play.
6. Your fair consideration with the customers is your best long-term repeat business.

This list provides you with the necessary information for ordering replacement parts for you game. Please note that, for simplicity, common hardware has been deleted from most of these parts lists. This includes screws, nuts, washers, bolts, etc.

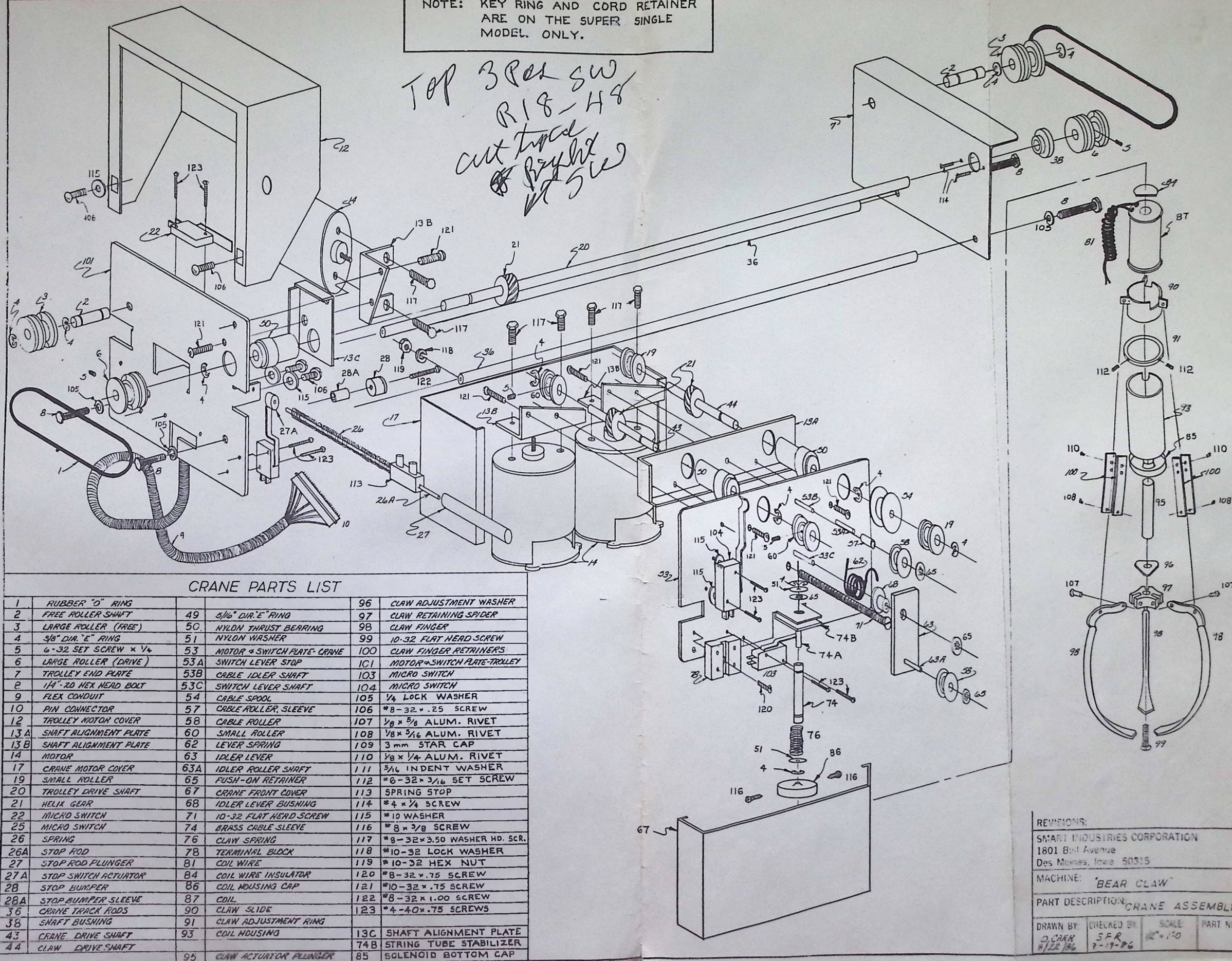
When ordering parts give the part number, part name, and serial number of your game. This will help to avoid confusion and mistakes in your order. We hope the results will be less downtime and more profit from you game.

PARTS LIST (CRANE)

- | | |
|----------------------------|-------------------------------------|
| 1. Rubber "O" Ring | 53. Motor & Switch Plate "Crane" |
| 2. Free Roller Shaft | 53A. Switch Lever Stop |
| 3. Large Roller (Free) | 53B. Cable Idler Shaft |
| 4. 3/8 DIA. "E" Ring | 53C. Switch Lever Shaft |
| 5. 6-32 Set Screw | 54. Cable Spool |
| 6. Large Roller (Drive) | 57. Cable Roller Sleeve |
| 7. Trolley End Plate | 58. Cable Roller |
| 8. 1/4-20 Hex Head Bolt | 60. Small Roller |
| 9. Flex Conduit | 62. Lever Spring |
| 10. Pin Connector | 63. Idler Lever |
| 12. Trolley Motor Cover | 63A. Idler Roller Shaft |
| 13A. Shaft Alignment Plate | 65. Push On Retainer |
| 13C. Shaft Alignment Plate | 67. Crane Front Cover |
| 14. Motor | 68. Idler Lever Bushing |
| 17. Crane Motor Cover | 71. 10-32 Flat Head Screw |
| 19. Small Roller | 74. Brass Cable Sleeve |
| 20. Trolley Drive Shaft | 76. Claw Spring |
| 21. Helix Gear | 78. Terminal Block |
| 22. Micro Switch | 81. Coil Spring |
| 25. Micro Switch | 84. Coil Wire Insulator |
| 26. Spring | 86. Coil Housing Cap |
| 26A. Stop Rod | 87. Coil |
| 27. Stop Rod Plunger | 90. Claw Slide |
| 27A. Stop Switch Actuator | 91. Claw Adjustment Ring |
| 28. Stop Bumper | 93A. Coil Housing |
| 28A. Stop Bumper Sleeve | 95. Claw Actuator Plunger |
| 36. Crane Track Rod | 96. Claw Adjustment Washer |
| 38. Shaft Bushing | 97. Claw Retaining Spider |
| 43. Crane Drive Shaft | 98. Claw Finger |
| 44. Claw Drive Shaft | 99. 10-32 Flat Head Screw |
| 48. Crane Top Cover | 100. Claw Finger Retainer |
| 49. 5/16 DIA. "E" Ring | 101. Motor & Switch Plate "Trolley" |
| 50. Nylon Thrust Bearing | 103. Micro Switch |
| 51. Nylon Washer | 104. Micro Switch |

NOTE: KEY RING AND CORD RETAINER ARE ON THE SUPER SINGLE MODEL ONLY.

TOP 3 Pcs SW
R18-H8
cut top of
Bright
at 5 in

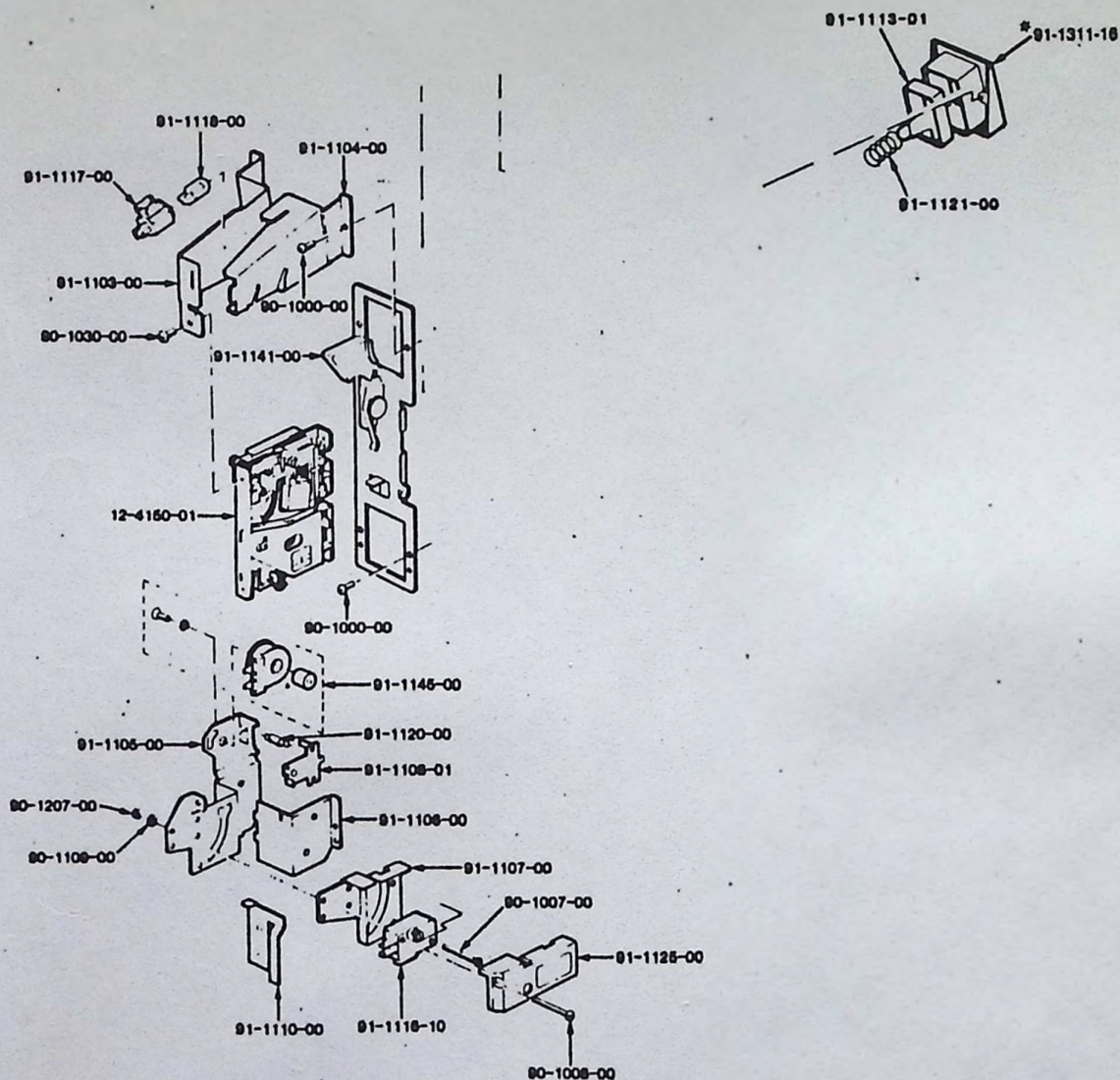


CRANE PARTS LIST

1	RUBBER "O" RING	49	5/16" DIA. "E" RING	96	CLAW ADJUSTMENT WASHER
2	FREE ROLLER SHAFT	50	NYLON THRUST BEARING	97	CLAW RETAINING SPIDER
3	LARGE ROLLER (FREE)	51	NYLON WASHER	98	CLAW FINGER
4	3/8" DIA. "E" RING	53	MOTOR & SWITCH PLATE-CRANE	99	10-32 FLAT HEAD SCREW
5	6-32 SET SCREW x 1/4"	53A	SWITCH LEVER STOP	100	CLAW FINGER RETAINERS
6	LARGE ROLLER (DRIVE)	53B	CABLE IDLER SHAFT	101	MOTOR & SWITCH PLATE-TROLLEY
7	TROLLEY END PLATE	53C	SWITCH LEVER SHAFT	103	MICRO SWITCH
8	1/4"-20 HEX HEAD BOLT	54	CABLE SPOOL	104	MICRO SWITCH
9	FLEX CONDUIT	57	CABLE ROLLER, SLEEVE	105	1/4" LOCK WASHER
10	PIN CONNECTOR	58	CABLE ROLLER	106	*8-32 x .25 SCREW
12	TROLLEY MOTOR COVER	60	SMALL ROLLER	107	1/8 x 5/16 ALUM. RIVET
13A	SHAFT ALIGNMENT PLATE	62	LEVER SPRING	108	1/8 x 5/16 ALUM. RIVET
13B	SHAFT ALIGNMENT PLATE	63	IDLER LEVER	109	3 mm STAR CAP
14	MOTOR	63A	IDLER ROLLER SHAFT	110	1/8 x 1/4 ALUM. RIVET
17	CRANE MOTOR COVER	65	FUSH-ON RETAINER	111	3/16 INDENT WASHER
19	SMALL ROLLER	67	CRANE FRONT COVER	112	*6-32 x 3/16 SET SCREW
20	TROLLEY DRIVE SHAFT	68	IDLER LEVER BUSHING	113	SPRING STOP
21	HELIX GEAR	71	10-32 FLAT HEAD SCREW	114	*4 x 1/4 SCREW
22	MICRO SWITCH	74	BRASS CABLE SLEEVE	115	*10 WASHER
25	MICRO SWITCH	76	CLAW SPRING	116	*8 x 3/8 SCREW
26	SPRING	78	TERMINAL BLOCK	117	*8-32 x 3.50 WASHER HD. SCR.
26A	STOP ROD	81	COIL WIRE	118	*10-32 LOCK WASHER
27	STOP ROD PLUNGER	84	COIL WIRE INSULATOR	119	*10-32 HEX NUT
27A	STOP SWITCH ACTUATOR	86	COIL HOUSING CAP	120	*8-32 x .75 SCREW
28	STOP BUMPER	87	COIL	121	*10-32 x .75 SCREW
28A	STOP BUMPER SLEEVE	90	CLAW SLIDE	122	*8-32 x 1.00 SCREW
36	CRANE TRACK RODS	91	CLAW ADJUSTMENT RING	123	*4-40 x .75 SCREWS
38	SHAFT BUSHING	93	COIL HOUSING	13C	SHAFT ALIGNMENT PLATE
43	CRANE DRIVE SHAFT	95	CLAW ACTUATOR PLUNGER	74B	STRING TUBE STABILIZER
44	CLAW DRIVE SHAFT			85	SOLENOID BOTTOM CAP

REVISIONS:			
SMART INDUSTRIES CORPORATION			
1801 Bell Avenue			
Des Moines, Iowa 50315			
MACHINE: "BEAR CLAW"			
PART DESCRIPTION: CRANE ASSEMBLY			
DRAWN BY:	CHECKED BY:	SCALE:	PART NO.
D. CAHILL	S.F.R.	1/2" = 1'-0"	
8/22/86	7-17-86		

Exploded View

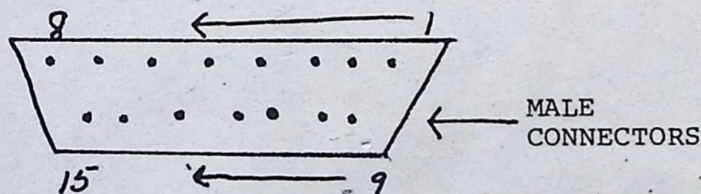


MINI DOOR W/CASH BOX PARTS LIST

12-4150-01	Gold Mech.	90-1032-00	Bezel/Hinge Screw PZ	91-1107-00	Microswitch Bracket	91-1113-01	Entry/Reject Button U.S. 25¢
20-4184-00	Mini Cash Box & Lid	90-1207-00	Nut for Microswitch Mounting Screw	91-1108-01	Lockout Flap U.S. 25¢	91-1116-10	Microswitch (Red End Arm)
20-4185-00	Mini Cash Box	91-0499-18	Black Nylon Mini Door Frame	91-1108-00	Reject Flap	91-1117-00	Lampholder
20-4186-00	Mini Cash Box Lid	91-0504-18	Door	91-1110-00	Metal Switch Adjuster	91-1118-00	6V Wedge Base Lamp
90-1000-00	Keyhook Bezel Screw	91-0506-00	Clamp	*91-1111-18	Black Button Bezel	91-1120-00	Lockout Spring
90-1002-00	Hinge Screw	91-0535-00	Flat Lock & Cam Assembly	*91-1211-00	Zinc Plated Button Bezel	91-1121-00	Button Spring
90-1003-00	Clamp Screw	91-1103-00	Coin Inlet Lamp Side	*91-1311-16	Black Nylon Button Bezel	91-1125-00	Clear Plastic Cover for Microswitch
90-1007-00	Flat Head Microswitch Mounting Screw	91-1104-00	Coin Inlet Cover Side	*91-1112	Black Reject Bezel	91-1141-00	Base Plate w/Pivot & Stud
90-1008-00	Panhead Microswitch Mounting Screw	91-1105-00	Reject Cup Side Plate	*91-1212-00	Zinc Plated Reject Bezel	91-1145-00	12 VDC Lockout Coil
90-1030-00	Mounting Screw for Gold Mech	91-1106-00	Reject Cup Base Plate	*91-1312-18	Black Nylon Reject Bezel		







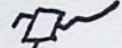



COIN HARNESS

PIN #	WIRE COLOR (colors may vary)	FUNCTION
1	GREEN	COIN MICRO SWITCH (COMMON)
2	white/orange Orange or	JOYSTICK LEFT (NORMALLY OPEN)
3	WHITE/YELLOW	JOYSTICK RIGHT (NORMALLY OPEN)
4	RED	JOYSTICK BACK (NORMALLY OPEN)
5	WHITE	JOYSTICK FORWARD (NORMALLY OPEN)
6	ORANGE (20 ga.)	POWER SUPPLY 12V
7	YELLOW (20 ga.)	POWER SUPPLY 12V
8		
9	WHITE/GREEN	COIN MICRO SWITCH (NORMALLY OPEN)
10	WHITE/BLUE	CLAW DOWN (JOYSTICK) (NORMALLY OPEN)
11	BLUE OR WHITE, RED	COIN METER (BLACK WIRE)
12	PINK,	COIN METER (RED WIRE)
13	WHITE/PURPLE	COMMON JUMPER OF ALL 5 MICRO SWITCHES ON JOYSTICK.
14	DARK BLUE (20 ga.)	POWER SUPPLY 48V
15	LIME GREEN (20 ga.)	POWER SUPPLY 48V

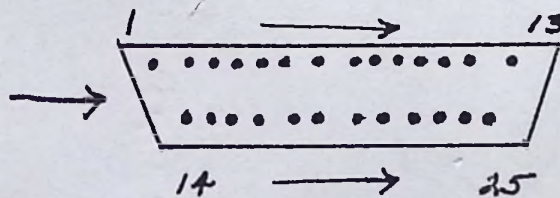


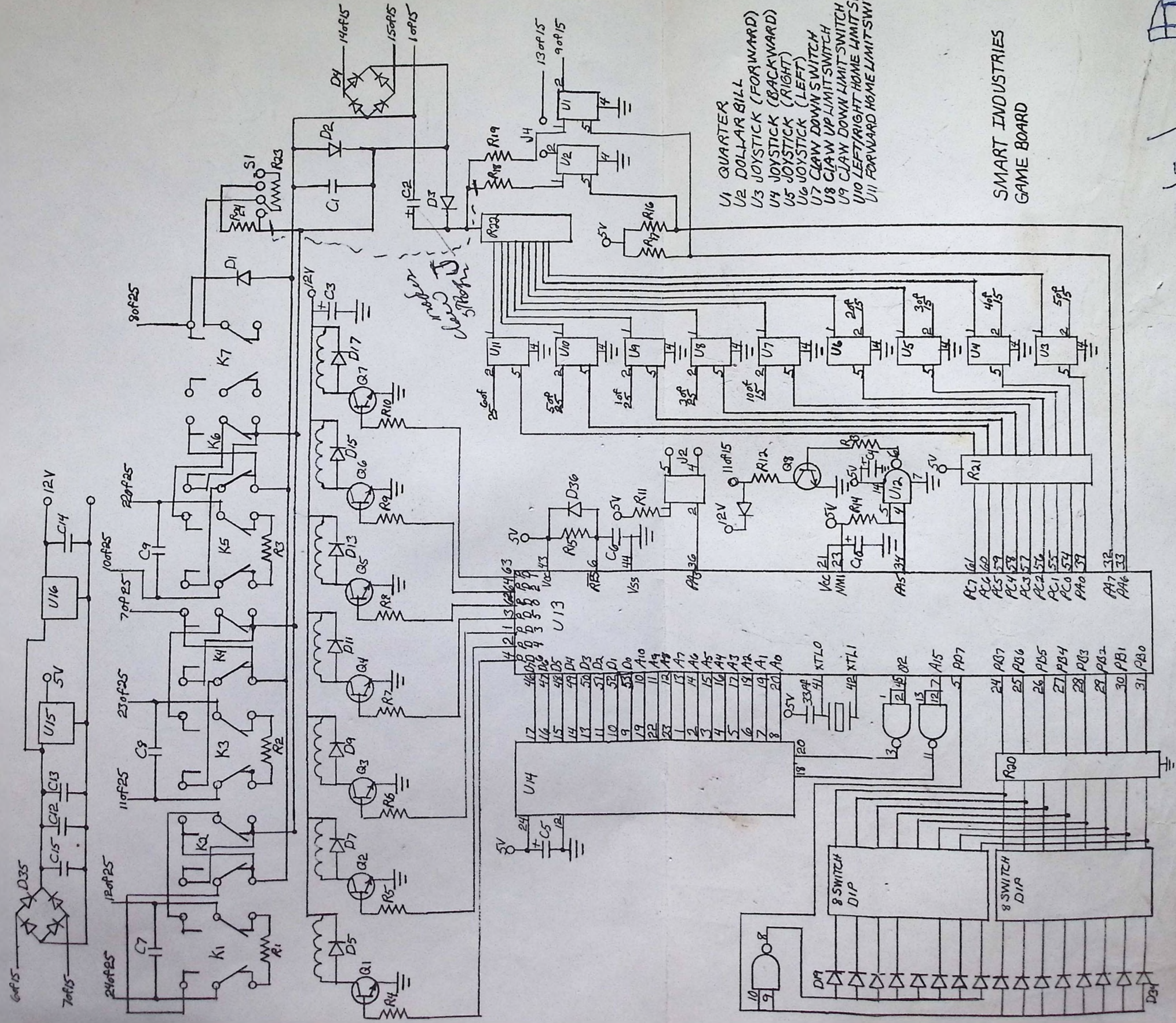
496.2

CRANE HARNESS

PIN #	WIRE COLOR (colors may vary)	FUNCTION
1	RED	CLOSE COMMAND SWITCH  (NORMALLY OPEN)
3	WHITE	UP/DOWN LIMIT SWITCH  (NORMALLY OPEN)
5	YELLOW	L/R LIMIT SWITCH  (NORMALLY OPEN)
6	PURPLE	F/B MOTOR LIMIT SWITCH  (NORMALLY OPEN)
7	BLACK	F/B MOTOR LIMIT SWITCH  (COMMON)
8	GREEN	CLAW SOLENOID 
10	ORANGE	UP/DOWN MOTOR (RED WIRE)
11	BLUE	L/R MOTOR (RED WIRE)
12	GRAY	F/B MOTOR (BLACK WIRE)
14	WHITE/YELLOW	CLOSE COMMAND SWITCH  (COMMON)
16	WHITE/GREEN	UP/DOWN LIMIT SWITCH  (COMMON)
18	BROWN	L/R MOTOR LIMIT SWITCH  (COMMON)
20	WHITE/BLUE	CLAW SOLENOID 
22	WHITE/PURPLE	UP/DOWN MOTOR (BLACK WIRE)
23	PINK	L/R MOTOR (BLACK WIRE)
24	WHITE/RED	F/B MOTOR (RED WIRE)

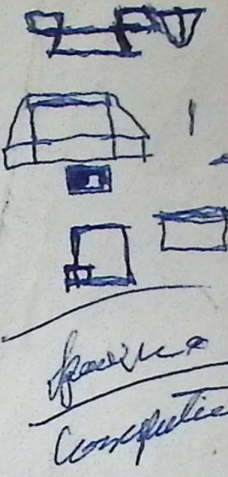
FEMALE
CONNECTORS





- U1 QUARTER
- U2 DOLLAR BILL
- U3 JOYSTICK (FORWARD)
- U4 JOYSTICK (BACKWARD)
- U5 JOYSTICK (RIGHT)
- U6 JOYSTICK (LEFT)
- U7 CLAW DOWN SWITCH
- U8 CLAW UP LIMIT SWITCH
- U9 CLAW DOWN LIMIT SWITCH
- U10 LEFT/RIGHT HOME LIMIT SWITCH
- U11 FORWARD HOME LIMIT SWITCH

SMART INDUSTRIES
GAME BOARD

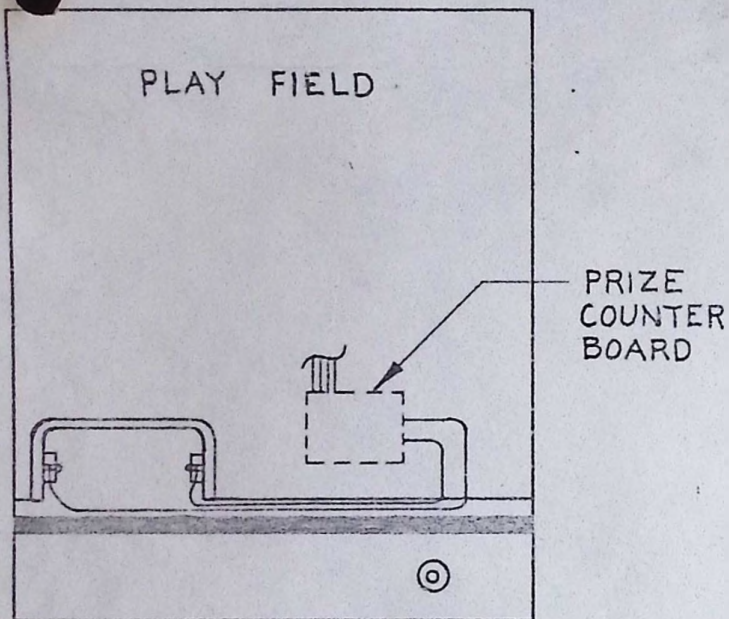


francis
computer

INSTRUCTION FOR INSTALLATION OF PRIZE COUNTER UNIT

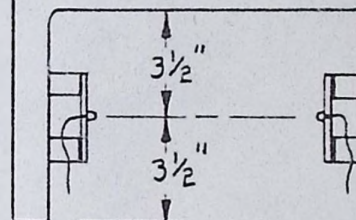
1. Mount circuit board on bottom side of playfield, inside coin mech door. (See Figure 1)
2. Mount prize counter beside coin counter on rear wall, inside coin mech door.
3. Route censor wires between front of playfield and window frame. (See Figure 1) Note:
4. With power disconnected connect power to circuit board. (See Figure 2)
5. Align sensors in prize chute (See Figure 3)

FIG. 1



NOTE: AN UPWARD FORCE FROM THE BOTTOM OF THE PLAY FIELD MAY NEED TO BE APPLIED IN ORDER TO FIT SENSORS THROUGH.

FIG. 3



NOTE: IT WILL BE NECESSARY TO TURN POWER ON TO MAKE SURE SENSORS ARE ALIGNED. THE RED ON THE CIRCUIT BOARD WILL BE ON WHEN SENSORS ARE PROPERLY ALIGNED.

CAUTION: DAMAGE MAY RESULT IF POWER IS LEFT ON WITH SENSORS UNALIGNED.

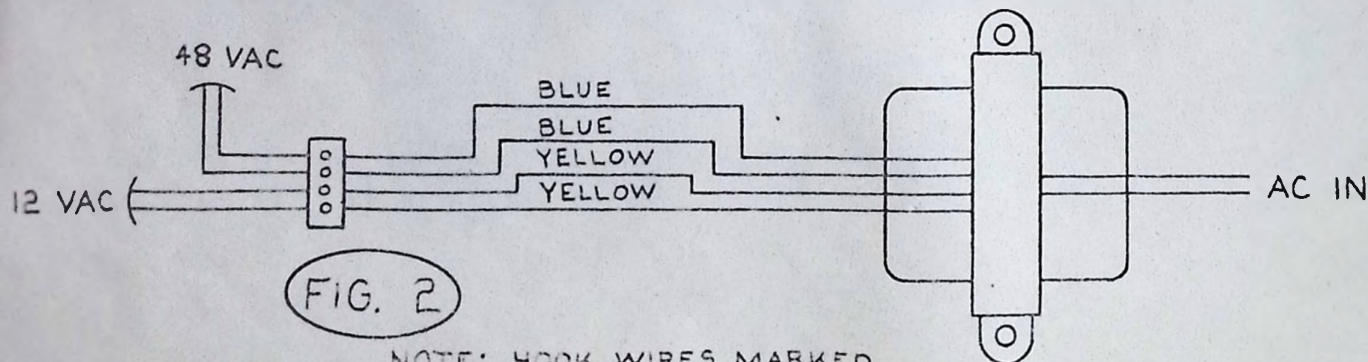


FIG. 2

NOTE: HOOK WIRES MARKED 12 VAC TO THE 12 VAC WIRES FROM THE TRANSFORMER.